Sneak Preview

Photonics Media — The Pulse of the Industry

Photonics West, San Francisco, Calif., Feb. 1-6, 2014

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LIGHT EXCHANGE

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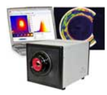
IRE Cooled Infrared Imaging Camera

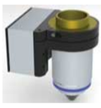


These high performance infrared imaging cameras are based on cryogenically cooled MCT infrared detectors and feature high frame rates, variable integration time and radiometric calibration. A variety of MW and LW models are available with powerful desktop software and SDKs.

Sofradir-EC Inc. — See us at booth 639

www.ircores.com

nPFocus Series Nanopositioners



The nPFocus series nanopositioners provide precision positioning and scanning with microscope objectives and optics. These piezo stages provide rapid sample scanning with closed-loop repeatability and linearity. Travel ranges include: 100µm, 250µm, 400µm, and the new nPFocus1000µm stage.

nPoint Inc. — See us at booth 5009

www.npoint.com

OptiCentric® Cementing

OptiCentric® Cementing increases the productivity of your optics production. Two production steps can be done at the same time: The lenses are aligned and cemented while the next pair of lenses can be prepared. Furthermore, OptiCentric® Cementing can be optimized for different clamping methods used during the ensuing edge centering process.

TRIOPTICS GmbH — See us at booth 2123

trioptics.com

High Performance Deep UV LEDs

Crystal IS

Crystal IS manufactures high-performance deep UV LEDs used as light sources in spectroscopic applications for analytical and life sciences instrumentation. Additionally, our LEDs are well-suited to sterilize and disinfect water, air and surfaces for a variety of applications. Attend our presentation on UV LEDs with Improved Efficiency and Lifetime on February 6 at 2 pm.

Crystal IS, Inc.

www.cisuvc.com

Laser Wavelength Meters

Bristol wavelength meters measure laser wavelength to an accuracy as high as ±0.0001 nm. Continuous calibration using a built-in wavelength standard ensures the reliable accuracy needed for the most demanding applications. Operation from 350 nm to 12 µm is available.

Bristol Instruments, Inc. — See us at booth 510

www.bristol-inst.com

140W Fiber Laser Pump

The ST Series, the brightest fiber-coupled diode laser with a 140W in 106.5 µm core, enables simple, high-performance multi-kilowatt fiber laser architectures that meet various customer requirements with industry-best reliability and innovative optical and mechanical designs.

JDSU — See us at booth 1331

www.jdsu.com

ATS9370 - 4GS/s 12 BIT PCIe A/D

AlazarTech is proud to introduce ATS9370, a 4 GS/s, 12 bit A/D board for PCI Express bus. Ideal not only for biomedical imaging applications such as OCT, but also many other advanced applications.

Alazar Technologies Inc. — See us at booth 106

www.alazartech.com

Phantom v2010

The fastest commercial CMOS ultra high-speed camera available runs at 22 gigapixels/second, providing 1 megapixel images (1280 × 800) at up to 22,000 frames-per-second. The Phantom v2010 is ideal for the most demanding high-speed applications. Look to Phantom cameras when it's too fast to see, and too important not to.

Vision Research — See us at booth 2200

www.visionresearch.com

Smallest GigE Vision/CameraLink SWIR

The affordable ultra-compact and high resolution Bobcat-640-GigE SWIR camera comes with an industry-standard GigE Vision interface for easy integration in your own system. You get excellent image quality with on-board image processing and Thermo Electric (TE) stabilization for low dark current and optimized noise performance.

Xenics — See us at booth 424

www.xenics.com

Zemax OpticStudio™ 14

Innovate with speed and confidence using the new Zemax OpticStudio™ 14 optical and illumination design software. Built on Zemax's core physics engine OpticStudio™ 14 is reliable, accurate and engineered for the way you work. Test-drive a hands-on demo at Photonics West.

Zemax LLC — See us at booth 2317

radiantzemax.com

FS5 Spectrofluorometer

Edinburgh Instruments to demonstrate the FS5 spectrofluorometer. The FS5 is an integrated steady-state fluorescence spectrometer designed to meet the requirements of the research and analytical markets. The optical design uses single photon counting techniques for increased detection sensitivity.

Edinburgh Instruments Ltd. — See us at booth 1023

www.edinst.com

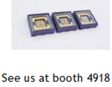
New AVT Goldeye Infrared Camera

The new Goldeye is a short-wave infrared camera (SWIR) with sensitivity between 900 and 1,700 nm wavelengths. It is the smallest SWIR camera with GigE Vision interface and delivers an outstanding image quality thanks to its built-in image optimization.

Allied Vision Technologies — See us at booth 124

www.alliedvisiontec.com

Nikkiso Advanced Deep UV LEDs



Nikkiso has released advanced deep UV LED products based on its proprietary AlGaN semiconductor technology. The devices feature the world's highest performance and reliability for biomedicine, industrial curing and printing, and sterilization.

Nikkiso Co., Ltd. — See us at booth 4918

www.nikkiso.com

2014 Photonics West

Wide-ranging Plenaries at SPIE Photonics West

A major draw at SPIE Photonics West each year are the plenary talks, presented under the LASE, OPTO and MOEMS/MEMS conferences. This year's speeches are no exception, providing well-rounded topics to appeal to all technical attendees.

At the LASE plenary, which begins Wednesday, Feb. 5 at 10:20 a.m., Photonics21 President and Jenoptik AG CEO Michael Mertin will speak on "Photonics21 and the Perspectives from the European Photonics Industry."

The European Commission recognized the potential of photonics to strengthen Europe's industrial and innovation capacity and consequently declared photonics as a Key Enabling Technology. Photonics21 as partner of the European Commission developed a Multiannual Strategic Roadmap which aims at boosting European photonics along the whole innovation chain with special focus on the gap between generating knowledge and products. The roadmap will be realized in a public-private partnership between the European photonics industry and the European Commission until 2020.

After Mertin, Koji Sugioka, senior research scientist at Riken in Japan, will address "Femtosecond Laser 3-D Micromachining and its Applications to Biochip Fabrication." Sugioka will explain that femtosecond lasers have opened up new avenues in materials processing due to their unique characteristics of ultrashort pulse widths and extremely high peak intensities that induce strong absorption in even transparent materials, such as functional biochips. In his talk, Sugioka will detail the fabrication procedure of biochips using the femtosecond laser and applications of such chips.

Michel Meunier, professor of engineering physics at Ecole Polytechnique de Montréal, will present "A New Plasmonics Enhanced Ultrafast Laser Multi-Nanoscapel." Meunier will speak on a new technique recently introduced to perform nanosurgery in living cells using a laser multi-nanoscapel. He will explain that the laser multi-nanoscapel shows promise as an innovative tool for fundamental research in biology and medicine as well as an efficient alternative nanosurgery technology that could be adapted to therapeutic tools in the clinic.

Silicon photonics and ultrafast thin-disk lasers are the focus of the OPTO plenary, held Tuesday, Feb. 4 beginning at 8:30 a.m. Cornell University's Michal F. Lipson will begin with her presentation, "Pushing the Boundaries of Silicon Photonics." Lipson, a professor in the School of Electrical and Computer Engineering, will provide an overview of recent advances and challenges in on-chip photonics. She will describe ultrahigh speed devices that enable one to change the structure's optical properties on a time scale shorter than the photonic time of flight, leading to novel applications such as optical isolators on a silicon chip.

Lipson will be followed by professor Ursula Keller of ETH Zurich in Switzerland, who will speak on "The Previously Unbelievable Performance of Ultrafast Thin Disk Lasers." She will explain that, with semiconductor thin disk lasers, an average power of <1 W can be obtained with both femtosecond and picosecond pulses and a pulse repetition rates ranging between 100 MHz to 100 GHz.

The MOEMS/MEMS plenaries will feature engineering professor Roger T. Howe of Stanford University speaking on "Electrostatic Nano Electromechanical Switches (NEMS) for Energy-Efficient Digital Systems;" Cornelia Denz of the University of Münster in Germany explaining "Tailoring Light for Optically-Guided Nano- and Microassembly: From Bio-Hybrid Robots to Droplet Cages;" and John A. Rogers, of the University of Illinois talking about "Bio-Integrated and Bio-Inspired Optical Microsystems."

Stop by our booths!

Visit Photonics Media at Booth 8701 during BiOS or Booths 700 and 701 during Photonics West, pick up the inaugural issue of Photonics Media's Industrial Photonics magazine or the January issue of our flagship publication, Photonics Spectra. Test your "light IQ" by playing our Light Masters game of photonics industry logos and/or trivia during the BiOS exhibition and you're registered for the drawing of a Google Nexus 7 tablet. There will also be Nexus 7 drawings daily for Light Masters players during the Photonics West Exhibition, as well as a random drawing on Feb. 6 for $300 in gift cards from Amazon! And as always, you can visit us online at www.photonics.com

photonics.com

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